



State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 2456 933 545

AUG 01 2000

Mr. Cristopher Anderson
Director Environmental Affairs
L.E. Carpenter & Company
Suite 36-5000
200 Public Square
Cleveland, OH 44114-2304

Dear Mr. Anderson:

Re: L.E. Carpenter Superfund Site
Wharton, Morris County

The New Jersey Department of Environmental Protection (Department) and EPA have reviewed the letter entitled Free Product Remedial Alternative Analysis dated May 15, 2000 and have the following comments:

Department's Comments

1. If the results of the laboratory treatability test of in-situ chemical oxidation demonstrate that this technology is effective in treating the free product, a pilot test should then be conducted at the site. However, prior to a pilot test being conducted a work plan must be submitted that will address the following:
 - a. Are any pH modifiers (e.g., acid) used in the process?
 - b. What is the anticipated radius of influence of treatment?
 - c. What pressure is used for injection?
 - d. What is the typical temperature of ground water during treatment?
 - e. Specific quantities of reagents used must be provided.

EPA's Comments

2. EPA agrees that the proposal to conduct a focused feasibility study (FFS) to investigate ways for augmenting LNAPL recovery, is an important next step in



ultimately cleaning site ground water. The first technology proposed is using the Fenton's Reagent technology. While bench tests may demonstrate this to be effective in reducing contaminants, experience at other sites has shown that bench testing is not a sufficient indicator that it will actually work in the field. In addition to bench testing, a limited pilot test should be conducted in the field.

3. When considering in situ oxidation such as Fenton's Reagent, it is important to recognize that such technologies have a strong negative impact on biodegradation, which has been proposed for the dissolved phase of the plume.

EPA concurs with the proposal to evaluate additional technologies to enhance the recovery of LNAPL. Alternative 2, French Drain/Recovery Trench, and Alternative 3, Multiple-Phase Extraction, are both acceptable technologies. Additional technologies should also be evaluated as part of the FFS, which might be used either singly or in conjunction, and may include heating, flushing, and surfactants.

As discussed during our conference call on July 31, 2000, a Focused Feasibility Study Work Plan is due August 14, 2000. The Focused Feasibility Study Report will be due ninety (90) calendar days from the receipt of the Department's and EPA's approval of the work plan.

Please contact me at (609) 633-7261 if you have any questions.

Sincerely,



Gwen B. Zervas, P.E.
Case Manager
Bureau of Case Management

C: Stephen Cipot, EPA
Nicholas Clevett, RMT
George Blyskun, BGWPA
John Prendergast, BEERA